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DETERMINANTS OF ADULT ENROLLMENT IN TELEVISED COLLEGE-CREDIT COURSES, PART II--MOTIVATION, RESISTANCE, AND CONCLUSIONS.

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THIS IS PART TWO OF A TWO-PART STUDY OF MOTIVATION, SOCIAL CHARACTERISTICS, AND REACTIVE BEHAVIOR OF ADULTS ENROLLED IN OPEN-CIRCUIT TELEVISED COURSES OFFERED FOR COLLEGE CREDIT BY THE COLLEGE OF GENERAL STUDIES OF THE UNIVERSITY OF PENNSYLVANIA (PART ONE WAS ED 003 187). PART TWO OF THE STUDY WAS CONCERNED WITH MOTIVATION AND RESISTANCE TO TELEVISED INSTRUCTION. DATA CONSISTED OF RESPONSES TO OPEN-ENDED ITEMS IN THE QUESTIONNAIRES RETURNED BY ABOUT 160 ENROLLEES IN TELEVISED COURSES AND APPROXIMATELY 150 ENROLLEES IN ON-CAMPUS COURSES. CONCLUSIONS OF BOTH PART ONE AND PART TWO ARE COMBINED IN THIS REPORT. OBSERVATIONS HAVE PROVIDED EVIDENCE THAT TELEVISION IS ACCEPTED AS A MEDIUM OF INSTRUCTION UNDER CIRCUMSTANCES WHICH--(1) IMPEDE PARTICIPATION IN COURSES OFFERED ON THE CAMPUS, (2) INTENSIFY THE NEED FOR A LIMITED NUMBER OF COLLEGE CREDITS TO ACHIEVE A SALIENT GOAL, OR (3) BOTH. HENCE, TELEVISED INSTRUCTION FOR CREDIT IS AN ATTRACTION FOR THOSE WITH RESTRICTIONS UPON CAMPUS ATTENDANCE. (WB)

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DETERMINANTS OF ADULT ENROLLMENT IN TELEVISED COLLEGE-CREDIT COURSES

Part II : Motivation, Resistance, and Conclusions

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University of Pennsylvania
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May 27, 1965

Charles F. Hoban

I. RATIONALE

This is the second part of a two-part report of a study of adults enrolled in on-campus courses and those enrolled in televised courses offered by the College of General Studies of the University of Pennsylvania.

The central problem is to integrate under a unitary principle the common and differential characteristics of the two sets of adults. Such a principle must "explain" why one set enrolls for college credit in televised courses and the other set does not.

As stated above, the formulation of the problem is a reconstruction of its original conception. As originally conceived, the problem was to identify the determinants associated with persistent enrollment in televised courses, by either number of courses or number of semesters of enrollment. Analysis of the data revealed no significant correlations of student characteristics and persistent enrollment.

However, when the "zero enrollment" group, i.e., a random sample of on-campus course enrollees during the Fall semester of 1963, was compared with the televised course enrollees, significant response differences were found. These differences included age, marriage, amount and history of prior college education, distance of residence from the campus, and estimated time spent in completing the 24-item questionnaire.

Median family income of approximately $8,700 was the same for both sets of course enrollees, as was a reported high proportion of college-educated. Thus, both sets of enrollees were drawn from income groups higher than the average of the metropolitan community, and both mixed socially with people who were attending, had attended, or had graduated

from college.

In this kind of social environment, subtle and not-so-subtle pressures undoubtedly combine to predispose toward continuing college education. However delayed or partial, attending college courses is "the thing to do".

Acceptance of televised courses is acceptance of educational innovation. While apparently related to social "press", acceptance of innovation cannot be explained sufficiently by income level or social grouping. These limited bases ignore the focus of meaning of college education and priorities among the reasons given for attending college. Furthermore, they do not reveal why a relatively few elect to enroll in televised courses or why the preponderant majority does not.

With known differences in demographic and ecological characteristics of the two sets of enrollees, and with inferred social pressures operating to predispose adults to continuing education, the desirability of an integrating principle became apparent, and the problem was appropriately reformulated.

In this second part of the report, stated reasons of both sets of enrollees for seeking college credit and degrees will be compared, reasons for acceptance and avoidance of televised instruction will be analyzed, and the attempt will be made to draw all data together so as to explain the different behavior patterns of the two sets of enrollees.

The remainder of this chapter will be devoted to a discussion of the social context in which continuing liberal education of adults occurs, and a brief discussion of the rationale for analyzing educational motivation. The following chapters of the report will be devoted to display and interpretation of the analyzed data, and to conclusions.

Social Functions of the General College

The University of Pennsylvania's College of General Studies is more or less typical of general colleges increasing among universities throughout the country. It is part-time, evening division of the liberal arts college and the women's college, offering both the Associate in Arts and the baccalaureate degrees. The College of General Studies provides opportunity for continuing college education to the large

segment of adults who, for a variety of reasons, cannot attend college on full-time basis.

Its students are drawn largely from the metropolitan community. Consequently, the College of General Studies is a liberal arts community college. Televised courses were introduced in the Fall of 1959. Two courses have been telecast each semester since, with one course rebroadcast during the Summer term.

The educational enterprise of a general college is particularly significant at this time when the general level of educational expectation is rising. College and universities have responded to these rising educational expectations in a variety of ways. Many have increased their capacity for housing and teaching to meet the tide of "war babies", and others have made more modest provision for increased student enrollment while expanding their research facilities and proclaiming their devotion to "quality" education.

Most of the colleges and universities have increased selectivity in admission by raising the acceptable level of college entrance examination scores and high school average and class standing. At the same time, "standards" for remaining in college and for graduation have been raised. It is now more difficult to get into college, more difficult to graduate once admitted, and more expensive to attend either as a day student or a resident student.

This curiously mixed response to various pressures on colleges and universities creates an imbalance by which the "common man" must meet "elite" requirements. He is expected to do this by becoming less common, by rising above "others". Meanwhile college attendance becomes more common.

The general college has developed into a necessary yet ingenious device for narrowing the gap between educational expectations and educational achievement for that group of <u>adults</u> who feel the sting of the rising educational expectations. For one reason or another, perhaps for several, this group either did not attend college full-time at the normal pre-adult age, or dropped out of college for reasons of health, finances, early marriage, poor academic performance, or personality conflicts. With organization, effort, and sacrifice, part-time college attendance can be managed along with a full-time job, parenthood, and other conditions of maturity.

Alternative Models of Motivation

The model finally selected for use in analyzing the motivation of enrollees in both strategies of instruction derives largely from dimensions of social living--jobs and income, social relations, intellectual stimulation and enjoyment, and preparation for advanced studies.

Alternative models were considered and largely abandoned as inappropriate for survey research utilizing the questionnaire. Nevertheless, these models are relevant to the study of adult educational motivation and will be referred to from time to time in Chapters II and III.

Anxiety Reduction and the Need to Know

There is some suggestion in the questionnaire responses that anxieties are related to course enrollment and degree seeking--anxieties about what fate holds for the individual; about the obsolescence of human skills with the introduction of automated systems; about the social imbalance of better educated husbands, wives, and/or friends; about spiritual death on a job that has lost its personal challenge; about the demands in an affluent society for higher incomes and better jobs, and the relationship between education and earnings.

Intellectual work is widely recognized as a means of coping with and overcoming anxiety. It changes the nature of joyful experience and heightens the level of self-sufficiency (2).

If anxiety is used in the sense of concern, or if it is used in a deeper ontological sense as the lot of man, then it is possible to view anxiety as a source of educational motivation. Committed intellectual activity in formally organized courses taken in a respected university may be viewed as an appropriate means of reducing and overcoming anxiety. (2,11)

However, the intellectual aspects of college attendance can be discussed without reference to socially induced anxiety states by postulating a primordial need to know. Such a need has been postulated by Maslow (9). College or university courses channel this need into specific areas of knowledge.

Knowledge of today's lineup, of batting averages, of the private lives of TV performers, of who is "in" and who is "out" in any area of popular culture, also serves this need. It is a matter of dispute as to which of

these knowledge areas are "higher". No satisfactory metric system has been developed to measure the social attitude of knowledge.

The basic point is that human beings have a need to know, that the need to know is a "growth-expansion" need, and that colleges and universities operate to satisfy that need, as well as other needs.

Growth-Expansion Needs

Growth-expansion needs, and their relation to education, have been theorized and researched over the past decade with increasing frequency. Kuhlen postulates growth-expansion as an integrative need. He relates shifts in goals and interests in the process of adult development to this need (7). Included and subsumed in the growth-expansion need are the needs for achievement, power, creativity, and self-actualization.

Not as easily classified as growth-expansion is the need for affiliation, the need to establish a positive affective relationship with at least one other person. This need comes into play in the decision to accept or avoid televised courses in that televised instruction in itself removes face-to-face relations with the instructor and fellow students. On-campus group instruction in the presence of a "live" teacher provides at least the opportunity for establishing a relationship of affiliation. The operation of the need for affiliation will be mentioned in the section of this report dealing with reasons for acceptance and rejection of television as a mode of college instruction.

It is interesting to note in relation to the need for affiliation that there was a significant difference in estimated amount of time spent in completing the research questionnaire between students enrolled in on-campus courses only and those who had enrolled in televised courses. The questionnaire used was highly personal. It requested information on age, family income, marital status, reasons for seeking credits and degrees, the effect of continuing education on family relations, etc.

The fact that a higher time estimate was made by televised course enrollees suggests that the questionnaire served to establish a substitutive relationship of affiliation missing in the televised courses.

Value Analysis

The prevalance of values has been indicated above in the discussion

of growth-expansion needs. A highly useful array of values is that derived by Lasswell (8). These include enlightenment, respect, well-being, skill, affection, power, wealth, and rectitude. The motivational classification actually used in the following chapters of this report embraces several of these values.

In an earlier study of the general audience for early-morning televised courses, including the viewers as well as the enrollees, three classes of satisfactions were found, each of which is related to a value system: (1) personal adequacy and elaboration (enlightenment); social approval and admiration (affection and respect); and (3) self-discipline and tenacity (rectitude).

When values are arrayed by priority of intensity or frequency they involve not only valuation but evaluation. In effect, this type of evaluation will be used in the analysis of the educational motivation of adults enrolled in both televised and on-campus courses. In this way, the functions actually served, or said by students to be sought from college course experience, can be stated de facto in order of their priority.

Functional Model of Motivation

The functional model of motivation used in this study is derived from the reasons given by adults enrolled in on-campus and in televised courses for seeking college credits or college degrees. This model reflects university functions as operationalized by its clients, i.e., by students enrolled in either mode of instruction in the College of General Studies.

Four major functions were found to embrace all relevant responses of both sets of course enrollees. These functions are (1) vocational status; (2) social status; (3) personal development; and (4) preparation for graduate study. Each of these major functions was broken down into sub-functions, i.e., specific functions which constitute sub-classes of the major functions.

The function of vocational status includes any stated objective of course enrollment or pursuit of a college degree which is associated with jobs or job earnings. Social status includes any set of skills or any set of formal educational experiences which facilitates or enriches interpersonal relationships within the family or within friendship groups,

including occupationally related friendship groups. It excludes those statements relating a college degree to respectability in job-seeking or job-holding.

Under circumstances of job, family, or friendship, status is competitive as well as structural. Status motivation is motivation for survival in competitive situations within established or emerging social structures.

Status survival is used here as a relative term. It embraces the achievement of a range of status aspirations. Status aspirations vary from holding one's present job, or making one's marriage more congenial, to anticipatory role changes of wives going to work to help pay college expenses of their children. Also included as aspirations are role preservation of the father or mother whose spouse and/or children are better educated. There is more than a hint in status-survival statements that many parents are faced with the problem of "keeping up with the children", as well as with the Joneses.

Status enhancing functions of college courses and college degrees are thus a different order of functions than those related to personal development or to continuing education on a higher (graduate or professional) level. The latter are either non-competitive or preparatory to further training for a specific occupational category.

As used in this report, personal development includes any statement relating to expansion of life space on the intellectual and cultural levels. Such experiences are frequently characterized as "stimulating", or "interesting". They are accompanied by a pleasant feeling tone and they appear to be inherently satisfying. The competition involved (other than competition for course grades) is with the private, mocking self--the self that questions the priority of "knowledge for its own sake", or the continuing dependency on formal, institutionalized instruction for growth expansion.

Preparation for graduate studies includes statements to the effect that undergraduate courses and undergraduate degrees are pursued as prerequisite for professional training on the post-baccalaureate level, or for self-testing for adequacy of intellectual equipment and study skills required on "higher" levels of formal education. Under such circumstances, undergraduate courses are pre-vocational.

As an addendum to the function of the general college as discussed on page 3, it must be pointed out here that some adults, with baccalaureate or professional degrees, enroll for credit in either on-campus or televised courses of the College of General Studies for the sake of job status or personal growth. To them, earned credits are instrumentally valuable in an assortment of ways which will be examined in Chapter II.

In this latter analysis, i.e., the analysis of functions of course enrollment per se, attention will be given to formal enrollment as a contractual enforcement of discipline on attendance, study, and performance. Also, in the analysis in Chapter III, reasons for not enrolling in televised courses will be examined.

II. MOTIVATION

In analyzing the relationship between social and educational characteristics of adult students and the instructional strategies of televised and face-to-face instruction, it was found and reported in Part I that instructional strategy was significantly related to age, marriage, distance of residence from campus, and educational status.

While any or all of these student characteristics may also be related to their educational motivation, educational status seems the most susceptible. All adults enrolled in either on-campus or in televised courses were enrolled for college credits in an institution of formal education. If college attendance confers nothing else, it does confer educational status. The degrees conferred symbolize this status. The liturgy performed in the conferral has the secular overtones of a sacramental act.

The relationship between educational status and strategy of instruction was thoroughly documented. As compared with those enrolled only in on-campus courses, televised course enrollees differed significantly in greater number of undergraduate credits accumulated; those who had attended college on a part-time basis only had done so over a much longer span of years; and nearly one-fourth of those who could have earned a baccalaureate degree from the time that televised courses were instituted actually did so. Clearly, educational status was selective in choice of strategy of instruction.

Among those enrolled in on-campus courses and those in televised courses, most lacked a baccalaureate or a professional degree. However, in both instances some of the enrollees already had earned one or more of these degrees. This makes it possible to categorize educational status sharply

in terms of graduates and non-graduates. People have an earned college degree or they do not. The individual lacking but two credit hours to fulfill the requirement for a degree and leaving college with this deficiency is a non-graduate as is the individual who left college at the end of two semesters. The former's sin against the establishment is not as serious as the latter's, but it remains a sin of irreverance.

The Interaction Hypothesis

The basic hypothesis underlying the analysis of educational motivation is that motivation, educational status, and strategy (or mode) of instruction interact in some way. The problem is to discover how, if at all.

Motivation is analyzed in two ways: by single and multiple motivation and by priorities among motives. The criterion of single motivation is that only one of the four major categories of motives is specified by the enrollee as a reason for his enrollment. If more than one major motivational category is stated, motivation is multiple.

Priority of motivation is analyzed by rank order of frequency of mention of vocational status, social status, personal development, and preparation for graduate study; and by priority of each of these over any other.

All analyses of motivation are based on coded replies to two open-ended questions:

16. Do you think you can help your husband/wife by taking more college courses?

    _____ Yes

    _____ No

    If yes, how do you think you can help?

22. If you are working for a degree, why do you want a college degree? If you are not working for a college degree, why are you taking college courses for credit?

Single and Multiple Motivation

The problem here is whether motivation tends to restrict or to expand with higher or lower educational status and with enrollment in televised or on-campus courses. The nature of the interaction is shown in Table I.

TABLE I: SINGLE AND MULTIPLE MOTIVATION BY EDUCATIONAL STATUS AND MODE OF INSTRUCTION

Number of Motives Stated	College Graduates		Non-College Graduates	
	TV	On-Campus	TV	On-Campus
One	17	19	77	61
Two/More	4	8	44	44

TV Grads. vs. O-C Non-Grads. $p < .10$
TV Grads. vs. TV Non-Grads. $p < .20$
All other combinations $p > .20$

Probability values are based on the hypothesis that $p_1 = p_2$ computed by the exact method for 2 x 2 tables and involving the two-tailed test. Because of the small samples involved and the severity of the two-tailed test a confidence level of $p < .10$ is accepted as strongly suggestive of significance. (See Appendix for formula used in computer program.)

In exploratory research, there is a persistent temptation to formulate hypotheses after the data have been analyzed and then to present these hpotheses as prior predictions. The fact of the matter is that there was no prior hypotheses worthy of the name on how the interaction would occur. One guess was as good as any other guess. The data tell the story.

As shown in Table I, graduates enrolled in televised courses tend to state singular motivation in higher proportion than do non-graduates in on-campus courses ($p < .10$). Much less significant is the tendency of graduates in televised courses, in contrast to TV non-graduates, to state motivation in singular terms ($p < .20$).

The data indicate that the tendency toward singularity of motivation is greatest among adults who have already attained a high level of educational status and elect televised instruction. This tendency is somewhat meaningless, however, without consideration of the single motive most frequently stated and the conditions which appear to enforce this motive. From this consideration, a basis of choice of instruction by television may be inferred.

Examination of the statements of college graduates enrolled in televised (undergraduate) courses indicates that the most frequently stated motive is vocational status. Among those stating vocational status, 13 out of 16 enrolled to satisfy a mandated requirement for a specific number of college credits in order to qualify fully for the job now held, or to qualify for a "higher" job, or to become eligible for a salary increment. All but one of these 13 were teachers. The other was a physician with a medical degree from a foreign medical school. None of these stated any motive for course credits other than vocational.

Apparently, under institutional coercion which equates accretion of college credits with vocational status, the individual who is subject to coercion assumes an institutionally determined status motivation for continuing education at the expense of other equally valid motives--e.g., personal development through the act of learning, or better social relations with family, friends, or colleagues, based on broadened educational experience.

While these alternative motives may have been present, they were not stated. One reason they were not stated may be their subordination to, if not their subversion by, the need for vocational status and the identification of college credits with the fulfillment of this need. Televised courses provide a convenient if rigorous means of accumulating college credits.

Motivational Priority

Priority of motivation is the rank order of the four major categories of motivation--vocational status, personal development, social status, and qualification for graduate study.

In Table II the frequency of mention of the four major categories of motivation is shown, as is the frequency of mention of the subcategories under each major category. The subcategories constitute the referents of the major categories, i.e., the specific terms in which the major classes were perceived by the subjects in this study. Major categories are mutually exclusive, but subcategories are not. They flesh out the high abstractions of major categories and give a little of the feeling of the actual statements made by the enrollees.

TABLE II: PRIORITY OF MOTIVATION BY EDUCATIONAL STATUS AND MODE OF INSTRUCTION*

	College Graduates		Non-College Graduates	
Motives Stated	TV	On-Campus	TV	On-Campus
Vocational Status	16	11	75	75#
Get/Hold job	11	6	24	25
Higher earnings	4	4	15	10
Better job	1	1	12	24
Survive job changes	0	1	4	3
Far-future job	1	0	27	19
Social Status	3	4	36	22
Better family relations	3	2	23	10
Meet social competition	0	2	14	12
Personal Development	4	14	54	60
Professional growth	1	1	4	2
Sheer enjoyment	2	6	38	44
Broaden background	2	4	13	10
Subject interest	0	5	2	6
Qualify for Graduate Study	2	7	6	9
Self-testing	1	1	1	0
Required courses	1	6	5	9
Sample N	22	30	141	121

Voc. St.:: Pers. Dev./Grad. TV vs. Grad. O-C $p = .03$
Voc. St.:: Pers. Dev./Grad. TV vs. Non-Grad. O-C $p = .06$
Soc. St.:: Pers. Dev./Non-Grad. TV vs. Non-Grad. O-C $p = .09$
Voc. St.:: Pers. Dev./Grad. TV vs. Non-Grad. TV $p = .10$
Voc. St.:: Soc. St./Non-Grad. TV vs. Non-Grad. O-C $p = .20$
All other combinations $p > .20$ (two-tailed test as in Table I)

*Since there were multiple responses, the N of the responses exceeds the N of the responding samples.

#The N of the major categories is the N of enrollees responding in terms of one or more of the subcategories. Consequently, the N of the subcategories may exceed the N of the major categories.

As shown in Table II, vocational status, personal development, and social status rank first, second, and third in priority for all students, graduate or non-graduate, taking courses by television or on-campus, except those graduates enrolled in on-campus courses. These latter reverse the order of priority, with highest rank given to personal development. Their priority of motivation sets them very much apart from their counterparts enrolled in televised courses.

Vocational Status and Personal Development

In this reversal of priority, college graduates enrolled in televised and in on-campus courses differ significantly ($p = .03$). The first order of priority given personal development by graduates enrolled in on-campus courses carrying undergraduate credit suggests that there is some relationship between the interpersonal relations of on-campus instruction and motivational priority for adults with high educational status. Either these graduates were not subject to coercion to accrete college credits for vocational stability or mobility, or, if they were, they maintained sufficient autonomy in face of such coercion to place personal development ahead of or equal to vocational status, and attend courses on the campus.

Examination of the statements made by graduates in on-campus courses indicates the former. Vocational motivations were either stated in general terms, such as increasing skills in specialized areas, or they were related to additional job qualifications. In other words, the vocational status motives of on-campus graduates were diffuse rather than sharply distinct, and they were of the sort that gave greater freedom of choice within an occupation, rather than vertical movement in the occupational career ladder, or direct and specific salary increases.

This difference not only in the proportion specifying motivation in terms of personal development but in the nature of the vocational motives specified strengthens the case already developed for the relationship between modes of instruction and motivational priority of college graduates enrolled in courses offered by the College of General Studies. It also strengthens the hypothesis that external coercion for accretion of college credits tends to produce an overemphasis on the vocational status motive and an underemphasis on other valid motives for taking college courses.

Graduates who take the time and make the physical effort involved in attending courses on the campus in late afternoon and evening hours apparently have achieved that station in life where they can afford to indulge in formal education activity out of sheer interest and enjoyment. In that state, they can view their vocational future with detachment from the frenzy of achievement and the immediacy of motivational fulfillment.

In the high proportion of vocational status motivation, graduates enrolled in televised courses predictably differ $p \leq .10$) from all other groups of course enrollees. They differ not only from graduates in on-campus courses but also from non-graduates in televised and in on-campus courses. In structure of motivational priority, they are unique.

In proportions stating vocational status and personal development motives, non-graduates do not differ appreciably by strategy of instruction. Indeed, personal development motivation remains high in priority.

Were the subcategory of "far-future job" to be overlooked, vocational status and personal development motives would be approximately equal in first order of priority. This particular subcategory is, with few exceptions, stated by married men or women. Responsibilities of marriage apparently give a new perspective to the future. Their educational activities involve anticipation of delayed economic rewards and satisfactions.

Many of those specifying vocational motivation in terms of "far-future jobs" are married women hoping to qualify as teachers and to obtain teaching positions when all their children are attending school. The hours of teaching and the school year coincide with those of their children and consequently do not disrupt family life,or, if so, very little. Additional family income is seen as desirable if not absolutely necessary to pay expenses of college education of the children.

Among non-graduates, some express indignant protest against what they apparently consider to be a degrading shift in value attached to college education. Essentially, this shift is perceived as a displacement in college education of the value of enlightenment by the value of economic and social respect.

Here is how one young, unmarried man expresses the situation:

> A college degree in itself is actually of little real value to the holder. Under the influence of society, the degree is

> becoming not only a means but a step to acquire a job of any major responsibility. Over and above this, the degree merely indicates that one has successfully completed certain requirements--this, and only a little more. As it turns out, the degree is a step that must be taken, if possible, in one's stride. This stride I must take.

Another young man, slightly older and also single, expresses his indignation this way:

> I am attending college for two reasons, each independent of the other. First of all, I wish to enrich my personal knowledge and experience. Second, to satisfy the distorted demands of our society. To achieve some degree of financial stability, I must have at least one document proving myself.

Older adults seldom protest against the system which relates education rather than performance to earnings and to upward vocational mobility. They tend to view the socializing process of education as more adaptive than anticipatory. They acknowledge the existence of the system and accept it as a fact of life, to be lived with more than demonstrated against. These adults are not the stuff of which sit-ins, stand-ins, lie-ins, and teach-ins are made of.

One of their interesting behavior patterns is the quest for an undergraduate degree to legitimize the status they already occupy. For example, a practicing dentist in his 50's returned to the College of General Studies to complete requirements for the AB degree. He had attended college during the years of the Great Depression and went directly to dental school on completion of prerequisite undergraduate courses.

At the stage in his professional career and at the age when adults begin to think of retiring, he took up his interrupted study for the baccalaureate. In a sense, this man sought to fulfill the life he already had lived and to earn in a non-professional area of mind the station of life he had already achieved. He could, in other words, afford a liberal education for its own sake.

Students of human development would explain this somewhat differently. They would say that our friend had altered his time perspective from the everlasting present to the inevitability of the future and set about putting

his house in order, finishing the unfinished business, and fulfilling long dormant needs.

Then there was the woman who held a position normally requiring a college degree. At the urging of her employer, she continued evening studies and earned the degree she required to hold the position which she satisfactorily occupied without the requisite degree. The degree legitimized the reality and restored balance in the system to everyone's peace of mind.

Social Status

Social status is generally ranked third in motivational priority. The exception is the college graduates enrolled in on-campus courses who ranked qualification for graduate study third and social status fourth. Only small numbers were involved in both categories, so the rank order difference can be safely ignored.

It will be noted in Table II that non-graduates in televised and in on-campus courses differed at a level of near significance ($p < .10$) in proportions stating personal development and social status motivation. This difference is largely an artifact of the questionnaire item dealing with the relationship of more college courses to helping husband or wife. Since a much higher percent of men and women enrolled in televised courses were married, the higher proportion of social status motives among televised enrollees is attributable to the higher percentage of married enrollees and to the prompting item in the questionnaire.

As previously indicated, a college degree is regarded as a status symbol. For many of the adults who stated motivation in terms of social status, it was exactly that. A younger, unmarried woman said she would die if she did not get her degree. Another said she wanted to be able to say she was a college graduate and added that she hoped her college education would increase and improve her conversational abilities. Some men, married and single, spoke occasionally of the prestige that goes with a college degree. Others spoke of the sense of well-being arising from taking courses at the University and thus becoming members of the university community (or "family", as it is also referred to).

Married men and women frequently mentioned their college work in relationship to intellectual companionship with husband or wife. An interesting case of a different sort is the mother in her 50's whose husband held a high professional position, and the youngest of her three children on the verge of earning a college degree at a resident university. She spoke of wanting to earn her degree before the youngest child did. The fact is that this mother did earn her degree before her youngest did. This was a case of a parent "keeping up with" her children.

Family life occasionally is highly competitive, and wives adapt to the value systems of husbands. A young women who graduated from a junior college and married a PhD in mathematics expressed her need for independent identity by insisting on an independent career. This career, curiously, was perceived as contingent on an AB degree.

The protest reaction operated somewhat differently for a young married woman whose husband was a graduate student in an area university. This wife had, as such wives do, contributed heavily to the family budget by working at a technical institute. According to the wife, the husband "is impressed with degrees and knowledge in general. The more the better..." This, she says, "is more important to my husband than to myself. If my husband had not coaxed, pushed, and aided me, I would have quit at the time our daughter was born--three months before my graduation." She had enrolled in a televised course, finished the course as well as the delivery, and earned her degree and presumably an increment of respect in her husband's value system.

These cases give some of the flavor of the humanity and the human condition of adults, young and old, married and single, who relate their college courses, on-campus or by television, to social status motivation. As far as the interaction hypothesis is concerned, there was no significant difference in the proportion of adults specifying social status motivation in comparison with any other motivational category that approached significance, except as the result of an item in the research instrument and of the marriage state. However, marriage has motivational consequences.

Qualification for Graduate Study

As Table II indicated, qualification for graduate study was a motive

limited to relatively few of the men and women who enrolled in either televised or on-campus courses. This category might have been absorbed into vocational status, since graduate study may be vocational. It trains people for the professions. However, in deference to the values of scholarship and of the social services of the professions, the separate category has been retained. Its significance lies in the implication that adults regularly enrolled in the College of General Studies, whether in on-campus or in televised courses, and whether non-graduates or graduates rarely do so with the intent of preparing for graduate study--except in the few cases where undergraduate preparation has been deficient in the major area of graduate study interest.

Interactional Patterns

In priority of motivation, as in its singularity and multiplicity, educational status and mode of instruction interact significantly. The top-heavy emphasis on vocational motivation among college graduates enrolled in televised courses is significantly different from the priority structure of motivation of graduates enrolled in on-campus courses. Within tolerable levels of confidence, the college graduates enrolled in televised courses also differ from non-graduates enrolled either in televised or in on-campus courses in the greater emphasis given vocational motivation.

Most of the college graduates who enrolled in televised (undergraduate) courses for credits were subject to institutional coercion to accumulate a specified number of credits in order to hold their jobs, qualify for "higher" jobs, or to become eligible for salary increments. Televised instruction provides a strategy by which college credits can be earned without the inconvenience of travel or parking, and without the brooding threat of physical danger on the city streets at or after dusk.

Theoretically, coercive college credit accumulation narrows the focus of motivation so as to exclude from the forefront of consciousness goals other than the one with which the accretion of college credits is institutionally equated. Under goal constriction and coercive need for college credits, a strategy of convenience and of least expenditure of time and travel is adopted.

On the other hand, college graduates who are not under institutional coercion to accrete college credits for vocational stability or mobility, or who maintain personal autonomy even when the subject to it, apparently prefer the interpersonal communication of the classroom and tend to relate this instructional situation more to the goal of personal development than to the goal of vocational status.

Non-college graduates enrolled in either televised or on-campus courses give first, second, and third priority in that order to vocational status, personal development, and social status motivation. With few exceptions, these adults, young or old, married or single, pursue their college education on a part-time basis. In this sense, they are continuing their formal education the hard way, carrying two sets of responsibilities on their shoulders--job and/or family, and college education. It is hardly surprising that vocational status would be a matter of first priority with these responsible adults. What is surprising is that personal development through the formal process of enlightenment is not lost sight of more than seems to be the case. Even more surprising is the relatively low priority given to social status as educational motivation.

Among non-graduates, particularly among young men, there is evidence of protest against what they believe to be a displacement of the enlightenment value of higher education by a respect value, i.e., they consider college degrees little more than symbols which open the guarded gates to employment in positions of responsibility. This, of course, is not universally true. But there is some evidence to support the statement.

III. RESISTANCE TO INNOVATION

Introduction of open-circuit televised courses for college credit is a technological innovation in the continuing education of adults. It has encountered resistance not so much by the university administration or the faculty as by adults engaged in continuing education, i.e., the clients.

Each semester, two televised courses are offered. The total enrollment for both runs between 35 and 50 a semester. Meanwhile, between 1800 and 2000 adults enroll in on-campus courses each semester in the College of General Studies. While the range of courses offered on-campus is many times greater than that offered over television, this range alone does not fully account for the very limited size of the televised course enrollment.

Resistance to television in adult education is national in scope. In his nation-wide survey of adult education, Johnstone found that television was used by only a trivial percent of adults enrolled in adult education courses. Commenting on this, Johnstone says:

> However, one of the most recent educational media, television, quite surprisingly has failed to make much of an impact in this area so far. Just why this is so is impossible to say conclusively. Open-circuit instructional television is still very much in its growth phase, but there is reason to believe that factors other than sheer availability may be behind this. If it is true, as some observers have noted, that television has come to be almost exclusively identified by the American public as a medium of light entertainment, it may be that no matter how much instructional fare were made available on television, other channels would still be preferred for formal learning experiences. (5)

In this present study of adults enrolled in continuing college education, it has been shown that two sets of conditions operate to make television attractive as a medium of college instruction of adults: (1) physical and social circumstances, such as age, marriage, and distance of residence from the campus, which make attendance of on-campus courses difficult, inconvenient, or excessively costly; and (2) strong motivation for a specific number of course credits in order to complete requirements for a degree, or to qualify for job tenure, job promotion, or salary increase.

Given strong motivation, the actual difficulties encountered in getting to class, leaving children in the hands of a baby-sitter, parking, and such like, operate to increase the attractivenss of a medium of instruction which involves no travel from home and relatively small time expenditure in class attendance. The sheer saving of time and travel effort, plus the self-confidence developed over a long period of successful coping with college course requirements, reinforce the credit motivation and generate in the adult an automony for semi-independent study and learning under remote and impersonal guidance of televised instruction.

Adventure in accepting innovation in education is not the fruit a daring spirit but of sheer psychological need for college credits, and restraints on sheer physical mobility. These force open the gates to innovation as the path of least effort for a given outcome of high value. Adult acceptance of technological innovation in education is the product of a psychological push and pull into novelty.

Relating this to the acceptance of television as a medium of light entertainment and to the rejection of it as a medium of formal education does not explain why the former is accepted or the latter rejected. To attempt to penetrate this problem, on-campus enrollees were asked:

> 21. Why did you not enroll in a televised course(s) instead of, or in addition to, the on-campus courses in which you enrolled?

Answers to this question are shown in Table III, on page 24.

Before examining this tabulation of answers, it is necessary to point out that 30 percent of the on-campus enrollees indicated in answer to a previous question that they were not aware that televised college credit courses were offered by the College of General Studies.

While, adults can hardly be expected to accept an alternative strategy of instruction when they are unaware of the alternative, it is unlikely that, had they been aware of the availability of televised courses, a high percentage would have accepted the alternative. Of the 45 who were ignorant of the televised courses, 30 had not enrolled in the College of General Studies prior to the Summer preceding the Fall term in which this study was made. In other words, two-thirds of the unaware were newcomers to the College of General Studies, and unlikely to adventure into televised instruction at this stage of their educational career without the contingent conditions of motivation and ambient obstacles.

Reasons for Avoiding Televised Courses

Table III shows the reasons given for not enrolling in televised courses by the 105 respondents enrolled in on-campus courses who were informed of the availability of televised college-credit courses.

Since there were multiple responses to the question, the responses totaled more than 100 percent of the respondents. Seldom, however, was the major reason -- the need for interpersonal experience in instruction -- qualified or reinforced by any of the other reasons given for not enrolling in televised courses. With few exceptions, the more frequently stated response was unequivocal, stated as a necessary condition to the expected fullness of college education.

The miscellaneous reasons, stated by 17 percent of the knowledgeable respondents, in a dreary recital of disinterest in televised instruction -- no interest in television, unwillingness to reorganize the diurnal pattern of activity or to surrender the comfort of sleeping late, knowledge that televised courses were offered but ignorance of what courses, fear that televised courses would not be accepted by other institutions, etc. The pace of continuing program was satisfactory, the on-campus courses adequate, the need for acceleration quiescent. There was no push or pull toward novelty.

TABLE III: REASONS FOR NOT ENROLLING IN TELEVISED COURSES GIVEN BY THOSE AWARE OF AVAILABILITY OF TV COURSES

	N	Percent
Interpersonal interactions of classroom essential to fullness of education	47	45%
TV courses offered not needed or not interesting	25	24
Hours of broadcast inconvenient	24	23
Carrying full-quota of on-campus courses	9	09
Miscellaneous: no set, too early in morning, didn't know how to enroll, etc.	18	17
No answer	6	06
TOTAL (N = 105)	129	122%

The limited number of televised courses offered, and the restricted range of subject matter represented in televised course offerings, resulted in their irrelevance to 24 percent of the knowledgeable respondents. Not only were the courses not needed in individual programs, or the needed course not offered on television, but, for several, the courses offered on television were uninteresting. A chemistry major, for instance, found no challenge in the British romantic poets, and a college graduate interested in industrial engineering wanted courses of "practical value". Humanistic culture was beyond the ken, with or without televised formal courses.

One on-campus enrollee told of viewing a course on television, finding the instructor rather dull and unspiring, and enrolling in same course, given by the same instructor on the campus. She felt that the instructor was not sufficiently forceful to "put the course across" without the supportive companionship of fellow students or the opportunity to raise questions in class. Apparently, a successful television instructor must acquire an elusive charismatic quality when represented on the television

screen. Enrolled, tuition-paying students are not uncritical of instructors and the quality of instruction, and absence of the charisma on the television screen gives rise to the need for social participation in the instructional process with fellow students and access to the instructor who, in consequence, becomes aware of the student's personal identity.

Interestingly, glibness or slickness in lecture presentation does not appear to be essential to the charisma. Some of the more successful television instructors (judged by student expression of preference for televised courses) were halting in their delivery, and not overwhelming in display of sophistication in every nicety of their subject. From casual observation, the quality of their presentation seems to be related to their attitude toward the subject. They treat it as a land they know and love rather than hostile territory every inch of which they must conquer with grim determination. Their obvious completence in their subject is illuminated by the wonder and the innocence of the kingdom.

The hour of broadcast, a boon to the older, married adult living in the suburbs, is also inconvenient to younger, more mobile adults. Twenty-three percent reported that conflicting work hours, out-of-town engagements, etc., made the hours an obstacle to course enrollment.

Any unusual scheduling of class hours is likely to run head-on into pre-set schedules of work, young family activity, and out-of-town engagements. Thus, the relative inflexibility of commercial broadcast schedules, with their high-revenue prime hours, and the unwillingness of educational stations to interrupt their "cultural" programming of prime evening hours, act to restrict the hours of availability of televised college credit courses. Competition of the children for the TV set during evening hours is also a factor not easily discounted, These act to confine the scheduling of college credit courses within narrow time limits, and thus to restrict their practical availability.

Approximately 10 percent of the on-campus students report that they are already carrying a full quota of on-campus courses and hence had not considered enrolling in televised courses. To them, televised courses are something alien to their milieu. There is no parity between on-campus and televised courses. The latter are something additional, new, unnecessary, and avoidable under ordinary circumstances.

The Need for Private Communication

The most frequently mentioned reason for rejecting televised courses is the absence of opportunity to ask questions of the instructor, to listen to questions raised by classmates and answered by the instructor, and to talk over the lectures and assignments with classmates.

Forty-five percent of the on-campus enrollees who knew of the availability of televised courses specified this reason for rejecting technological innovation which transforms the character of the instructional communication situation. The reason for avoidance or rejection of instructional television rests on a concept of college education as an interpersonal process, conducted in the privacy of relatively small classes, with continuing dialog between students and instructor, followed by discussions among students over appropriate beverages. This concept is strongly held among the adults enrolled in on-campus courses in the College of General Studies.

In the responses dealing with the lack of interpersonal communication in televised courses, there is an unmistakable perception of instructional television as deprivational among adults who have never enrolled in a televised course. A woman in her early 20's said:

> "I feel I can get more good out of a course which includes a question and answer session and the kind of atmosphere which promotes discussion with classmates and professors."

A young man, under 21, states the case against instructional television this way:

> I have not inquired about the courses offered because I feel the real purpose of a college education should not be viewed through a home TV. The pupil-instructor contact is lost.

A married woman in her late 30's said she did not enroll in television courses

> because I am able to attend classes on the campus. I feel there is no substitute for personal contact with the instructor. Teaching and learning are reciprocals of each other and the best results are possible when there is communication on a two-way basis. However, I would enroll in TV courses if I couldn't attend regular classes.

The most dramatic example of the sense of deprivation in televised courses is that of the woman who had completed with a B grade a course on Shakespearean drama offered on television. The next year she enrolled for credit and paid tuition charges for the same course on-campus. Eventually, this duplication was detected in the academic accounting system, and she was notified that the same course could not be counted twice toward a degree. Her reply was to the effect that she did not want duplicate credits. She wanted to read the plays with other classmates also reading the plays, so she could discuss the plays and get the viewpoints, interpretations, and criticisms of her classmates, and her instructor.

This basic attitude toward college education as a private, interpersonal communication situation endures until circumstances arise which make it prohibitively expensive in terms of time and effort required to satisfy a fixed number of college credit requirements essential to a specific goal. It has important theoretical implications for the communication process which will be presented in the concluding chapter.

The Contractual Function of Enrollment

Another question arises for those who enroll for credit in televised courses. They could have watched the courses without enrolling, and for a nominal fee could have obtained the course syllabus, reading references, and reading assignments.

In the questionnaire sent to television enrollees, the following question was included in an attempt to uncover reasons for dependency on the formal requirements of course credit in contrast to participation in the learning experience independent of institutional formalities:

> 17. You could have watched Television Seminar and done as much of the recommended reading as you wished without enrolling for credit, paying tuition, taking examinations, etc.
>
> Why did you enroll for credit in preference to viewing the courses without paying tuition and meeting course-credit requirements?

The majority responded to this question by stating that they enrolled for credit because they needed the credit--for application to degree requirements for job tenure, for salary increases, etc. But one out of five (19 percent) responded in terms which implied that enrollment

constituted a contractual arrangement. Under terms of the contract, enrollees obligated themselves to the discipline of attending the televised lectures, doing the reading assignments, and taking an examination which provided an external estimate of their achievement according to standards of achievement established by a recognized and respected institution of higher learning.

A married man, in his early 40's, stated this function in these terms:

> Money is, in itself, a stimulus. Without the fear of monetary loss as well as additional credits toward a degree, it would be too easy to miss a lecture, then another, and then interest. Incidently, I have most of the course lectures recorded on tape for future reference.

A married man in his 50's did it both ways. Here is what he said:

> I am interested in education for education itself, but I found the credit incentive a good taskmaster. I have since followed other courses without enrolling for credit, but missed much.

It could be argued that the experience of loss from subsequently audited courses was subconsciously predetermined by the human need to rationalize the worth of the prior investment of tuition payment. If so, the rationalizing exercise should apply lawfully to other cases as well. This does not appear to be so in the case of a married woman in her late 30's who said:

> When I needed the course credits, I enrolled for credit, but if I wanted the course as a refresher or just entertainment I took it without credit nevertheless.

An a married man in the same age bracket put it even more bluntly:

> Anyone can watch television. The desire to complete the course with a passing grade and earn the credits was an incentive not present in just watching, without enrollment.

These adults recognize their own inadequacies in self-discipline, establish their own criteria of education and entertainment, associate education with initial learning rather than relearning, and appraise its value in terms of personal investment. The greater the investment, the more valuable the product.

Enrollment for credit in televised courses legitimizes an activity undertaken in the name of education by imposing contractual obligations on the enrollee to fulfill institutional requirements. Failure to comply threatens him with financial loss as well as ego deprivation.

IV. CONCLUSIONS

Observed social characteristics, reactive behavior, motivational structure, and sources of resistance to open-circuit televised college credit courses provide persuasive evidence that television is accepted as a medium of instruction under circumstances which (1) impede participation in courses offered on the campus, or (2) intensify the need for a limited number of college credits to achieve a salient goal, or (3) both.

This conclusion is consistent which Gerbner's proposition which specifies that private and public communication differentially affect the messages communicated and the attitudes of both the sources and the receivers to the messages and to each other. (3) By extension, Gerbner's proposition hypothesizes that any technological mediation of messages (e.g., by television) which transforms a private communication situation into a public communication situation tends to be accepted only when the private situation is no longer accessible, or is excessively costly in time, effort, or self-denial.

On-campus instruction involving the presence of a teacher and of students, both of whom are known to each other, is private communication. It satisfies a need for affiliation, interpersonal communication, and personal encounter.

In televised instruction, the communication situation is public. The messages may be received by anyone, the receivers are anonymous, and two-way communication is difficult, if not impossible.

The dominant pattern of resistance to televised college instruction found in this study, is not unique to adults not enrolled in televised

courses offered over WCAU-TV and WHYY-TV by the College of General Studies of the University of Pennsylvania. This resistance is part of a general discontent with the depersonalization of the human condition. It is the unwelcome by-product of the introduction of automated and semi-automated systems in which people are faceless components designated by a number.

Visible unrest and academic protest demonstrations of students in large universities during the academic year of 1964-65 have been attributed, in part, to a shift to a kind of mass communication in the instructional system in order to accommodate large increases in number of students and in non-teaching commitments of full-fledged members of the faculty. Despite their inherent futility, contaminating influences, and unfortunate aberrations, such protests against "the system" are a response to a feeling of desolation where "Nobody knows my name".

While the results of this study of strategies of instruction in the continuing education of adults are specific to the College of General Studies of the University of Pennsylvania, some evidence exists in other research studies as well as in the phenomena of the current social scene to support their generalizability. (1,6) Gerbner's proposition constitutes an explanatory principle which integrates many of the finding's of this study.

The following conclusions are reasonable inferences from the data presented in Part I and Part II of this report.

1. The major obstacle to enrollment in televised college credit courses is anticipatory denial, under televised mediation of instruction, of access to interpersonal interactions with the instructor and classmates.
2. Inconvenience of the scheduled hour of telecast, limited range of course offerings, lack of a TV set, poor impressions of the instructor on television, and fear that credits earned in televised courses will not be accepted by other colleges and universities are additional obstacles.
3. Conditions which tend to restrict physical mobility of adults motivated to enroll for credit in college courses tend also to increase the attraction of tele-

vised courses as an alternative to on-campus instruction. Mobility restricting factors have been identified in this study as age, marriage, and distance of residence from the University campus.

4. Educational factors which faciliate rather than impede enrollment of adults in televised courses are the successful completion of a greater number of college courses, a greater span of years of college attendance on a part-time basis, and proximity to the goal of a college degree.

5. High educational status, defined in terms of an earned undergraduate, graduate, or professional degree, interacts with motivational structure and with mode of instruction.

5.1 Under coercive requirements which equate job tenure, job mobility, or salary increments with accretion of college credits, adults with earned degrees tend to enroll in televised courses to accelerate college credit accumulation, and to state motivational exclusively in terms of vocational status.

5.2 Without such coercive requirements, adults with earned degrees tend to enroll in on-campus courses and to give highest motivation priority to personal development.

5.3 Adults without earned degrees state motivational priority in the order as (1) vocational status, (2) personal development, and (3) social status, independent of enrollment in televised courses or in on-campus courses only.

5.4 Married men and women working toward an undergraduate degree tend to state social status motivation with reference to husband, wife, or children, more frequently than single adults for whom the intrafamily status problem does not exist, or not to the same extent.

6. In contrast to course auditing, course enrollment is perceived by the enrollee as a contractual obligation which binds him to regular attendance, to a full complement of required readings and other assignments, and to institutionally determined standards of academic performance, with a consequent higher appraisal of value received.

7. College credits, and more particularly a college degree, serve to enhance the status of the individual by institutional certification of persistent achievement. This certification raises the level of respectability of the self image, increases the anticipation of access to responsible jobs, and leads to euphoric tenure in jobs already held without such institutional certification.

BIBLIOGRAPHY

1. Erickson, Clifford G. & Chausow, Hymen M. Chicago's TV College: Final Report of a Three Year Experiment. Chicago:Chicago City Junior College, 1960.

2. Freud, Sigmund. Civilization and Its Discontents. Translated and edited by James Strachey. New York: W. W. Norten & Company, Inc., 1962.

3. Gerbner, George. "An Institutional Approach to Mass Communications Research". Paper read at the Symposium on Communication Theory and Research, Kansas City, March 24-26, 1965.

4. Hoban, Charles F. Determinants of Adult Enrollment in Televised College Credit Courses, Part I: Social Characteristics and Reactive Behavior. Philadelphia: The Institute for Cooperative Research, University of Pennsylvania, 1964.

5. Johnstone, John W. W. Volunteers for Learning: A Study of the Educational Pursuits of American Adults. Chicago: National Opinion Research Center, University of Chicago, Report No. 89, February 1963.

6. Kelman, Alfred R. Television Junior College in Oregon: 1959-1962. Salem: General Extension Division, Oregon State System of Higher Education, 1962.

7. Kuhlen, Raymond G. "Motivational Changes during Adult Years", in Raymond G. Kuhlen (ed.). Psychological Backgrounds of Adult Education. Brookline, Mass.: Center for the Study of Liberal Education for Adults, 1963.

8. Lasswell, Harold, Kaplan, A. Power and Society: A Framework for Social Inquiry. New Haven: Yale University Press, 1950.

9. Maslow, Abraham H. Toward A Psychology of Being. New York: D. Van Nostrand Company, Inc., An Insight Book, 1962.

10. Riesman, David, and Christoper Jencks, "The Viability of the American College", in Nevitt Sanford (ed.). The American College: A Psychological and Social Interpretation of the Higher Learning. New York: John Wiley & Sons, Inc. 1963, p.74-192.

11. Tillich, Paul. The Courage To Be. New Haven: Yale University Press, 1963.

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APPENDIX A

The following formula as used as the basis of programming the IBM 1620 II for calculating the probability of percentage differences:

$$P_1 = \frac{(a + b)!\ (c + d)!\ (a + c)!\ (b + d)!}{a!\ b!\ c!\ d!\ n!}$$

$$P_i = \frac{(a + b)!\ (c + d)!\ (a + c)!\ (b + d)!}{(a - 1)!\ (b + 1)!\ (c + 1)!\ (d - 1)!\ n!}$$

$i > 1$

$$P = \sum_{i=1}^{a+1} P_i$$

If $P \leq \alpha$; H_i: $p_1 = p_2$ rejected.